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Sporadic Contraceptive Use and Non-Use: Age-Specific Prevalence and Associated Factors

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Abstract

OBJECTIVE—To characterize age-group specific patterns in the stability of contraceptive use, and evaluate whether factors associated with non-use and sporadic use as compared to stable use differ by age among women at risk for unintended pregnancy.

STUDY DESIGN—We used data from the 2006–2010 National Survey of Family Growth to characterize the prevalence of stable and sporadic contraceptive use and non-use by age over a 1-year period. We used polytomous logistic regression models to assess the odds of contraceptive non-use and sporadic use versus stable use. Age-stratified models were used to show age-group differences in associated characteristics.

RESULTS—Over a 1-year period, stable contraceptive use decreased across age groups from 80% for teens 15–19 years to 74% for women 20–24 years, and 70–71% for women 25–34 and 35–44 years. Contraceptive non-use increased across age groups from 5% for teens 15–19 years to 9%–20% for older women. By contrast sporadic use was least common for women 35–44 years (10%, compared to 16–17% for younger women). Among teens 15–19 years, a history of method discontinuation due to dissatisfaction was associated with non-use. Among older women, intentions to have children in the future and reported difficulty achieving pregnancy were associated with non-use and sporadic use.

CONCLUSION—Because the stability of contraceptive use and associated factors differ by age, providers may need to consider these differences when talking to women about contraception. To address non-use, it may be especially important to help teens identify a method they are comfortable using, while for older women it may be more important to discuss the potential for continuing fertility. To address sporadic use, it may be helpful to discuss the benefits of user-independent methods, with a particular emphasis on long acting reversible contraceptives for

Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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younger women and teens who are less likely to have completed their desired childbearing and have tended to rely on methods that are more difficult to use consistently.

Keywords

adolescence; age-differences; contraceptive counseling; perimenopause

INTRODUCTION

Recent estimates for the United States indicate that 51% of all pregnancies are unintended. Unintended pregnancy rates are highest for women 18–24 years, ¹ and public concern has focused on teens. ^{2–5} However, among older women, the proportion of pregnancies that are unintended and the ratio of pregnancies ending in abortion versus live birth remains high. ^{6,7} Similarly, while the consequences of unintended pregnancy for teens have received substantial attention, negative health outcomes are also more likely for older women and their children. ^{8–11} Preventing unintended pregnancy should be a public health priority for women of all ages.

Only 5% of unintended pregnancies are due to contraceptive failure, with the remaining 95% occurring among women who did not use any contraception, experienced gaps in use of contraception, or used contraception incorrectly or inconsistently. However, age-differences in contraceptive use patterns have not been well explored. Only a few studies have tracked contraceptive use over time to differentiate between non-use and gaps in use, 2, 5, 13 or examined whether the factors associated with incorrect or inconsistent use and non-use differ by age. Understanding these differences is important – addressing the reasons for gaps in use, non-use, and inconsistent or incorrect use may require different strategies, and the most significant barriers to contraceptive use may change over time with women's contraceptive preferences, relationships and reproductive intentions.

The objectives of this analysis were to: 1) characterize the age-group specific prevalence of contraceptive non-use and sporadic use as compared to stable use among women at risk for unintended pregnancy over a 1-year period, and 2) evaluate whether the associations between particular characteristics and contraceptive non-use or sporadic differ by age.

MATERIALS AND METHODS

We used data from the 2006–2010 National Survey of Family Growth (NSFG). The NSFG uses a stratified, multistage probability sample of women and men 15–44 years to create nationally representative estimates of sexual behavior and contraceptive use in the United States. For women, the final sample included 12,279 interviews with a 78% response rate. 15

We defined months at risk for unintended pregnancy for the 12 months prior to each woman's interview using the retrospective calendar data on sexual activity and contraceptive use. We considered a woman at risk during any month she had intercourse unless she was pregnant or seeking pregnancy, or was sterile or had a partner who was sterile by any means, including a tubal sterilizing operation or a vasectomy. Of the 12,279 women interviewed,

4,821 were excluded because they were not at risk during any month. An additional 72 women were excluded because of missing calendar data, for a final sample of 7,386 women.

Our outcome of interest was the stability of contraceptive use over the past 12 months. Contraceptive *non-users* were women who did not use contraception during any month they were at risk. *Sporadic users* were women who used contraception during some but not other at-risk months, and women who used contraception at some point during every at-risk month but not the last time they had intercourse, if this occurred during an at-risk month. *Stable users* were women who used contraception at some point during every at-risk month, as well as the last time they had intercourse, if this occurred during an at-risk month.

The primary characteristic of interest in our analysis was age (15–19, 20–24, 25–34, or 35–44 years). We also included characteristics we considered likely to influence contraceptive use to evaluate whether the associations between these variables and patterns of use differed by age. The characteristics we selected had been previously found to be associated with contraceptive use^{2, 4, 5, 13, 14, 16, 17} and were related to method dissatisfaction (history of ever discontinuing a method due to dissatisfaction), access to contraceptive services (health insurance coverage and receipt of birth control services in the past year), relationship stability and predictability of intercourse (number of partners in the past year, periods of sexual inactivity in the past year, and marital status), future childbearing intentions (intends to have children in the future), and reported difficulty achieving pregnancy. Additional control variables included parity, household income, education, and race/ethnicity.

We used NSFG sample weights to calculate the age-group specific prevalence of each characteristic in our analysis and the age-group specific prevalence of non-use, sporadic use and stable use. We used chi-squared tests with an adjusted Wald-F statistic 18 to detect age differences. We constructed multivariable polytomous logistic regression models to assess the adjusted odds of non-use versus stable use and sporadic use versus stable use, comparing women 15-19, 20-24 and 35-44 years to those 25-34 years. Because very few women had not ever used a method in their lives, we excluded these women from regression analyses to allow our models to include a variable for ever having discontinued a method due to dissatisfaction. In addition, because very few women were uncertain whether they wanted to have children in the future, for our regression analyses we placed these women in the same category as women who did not want to have children in the future, and then compared them to women who did want to have children in the future. Based on univariable associations, findings from previous literature, and the absence of multicollinearity, we retained our full set of covariates. To assess whether the association between particular characteristics and patterns of contraceptive use differed by age, we constructed a multivariable model for each characteristic we considered likely to influence contraceptive use in which we added an interaction term for age and that characteristic. To further evaluate characteristics with interaction terms that reached a significance level of p<0.15, we then constructed a series of age-stratified models. All analyses were conducted using SAS callable SUDAAN version 9.3, which accounts for the complex sample and design variables of the NSFG to produce unbiased standard errors.

This study was reviewed by an Institutional Review Board of the Centers for Disease Control and Prevention and was determined to be research not involving human subjects.

RESULTS

The prevalence of characteristics we considered likely to influence contraceptive use and other demographic variables differed significantly by age (Table 1). Teens 15–19 years had the lowest prevalence of having ever discontinued a method due to dissatisfaction and having no health insurance in the past year. Women in the two oldest age groups had the highest prevalence of private health insurance but the lowest prevalence of having received birth control services in the past year. The prevalence of having only one partner in the past year, being married, and experiencing few months (0–2) of sexual inactivity in the past year increased across age groups from younger to older women. Intentions to have children in the future decreased across age groups, while reported difficulty achieving pregnancy increased across age groups.

Overall 72% of women were stable contraceptive users, 15% were sporadic users, and 13% were non-users. Of the 1,153 sporadic users, 160 (14%) used contraception at some point during every at-risk month, but not at last intercourse. Stable contraceptive use decreased across age groups from 80% for teens 15–19 years to 74% for women 20–24 years, and 70–71% for women 25–34 and 35–44 years (Table 2). Contraceptive non-use increased across age groups from 5% for teens 15–19 years to 9–20% for older women. By contrast sporadic use was least common for women 35–44 years (10%, compared to 16–17% for younger women). In multivariable models, the odds of non-use versus stable use were decreased for women 15–19 and 20–24 versus 25–34 years, whereas the odds of sporadic use versus stable use were decreased for women 35–44 versus 25–34 years (Table 2).

In multivariable models assessing whether the association between certain characteristics and contraceptive non-use or sporadic use varied by age, we found a significant age group by characteristic interaction for: ever having discontinued a method due to dissatisfaction, health insurance in the past year, marital status, and intentions to have children in the future (P<0.05 for all interaction terms). Differences by age group did not reach significance for months of sexual inactivity in the past year, and reported difficulty achieving pregnancy (P<0.15), or for having multiple partners or receiving birth control services in the past year (P>0.5).

In age-stratified models, a history of ever having discontinued a method due to dissatisfaction was associated with increased odds of non-use versus stable use among teens 15–19 years, but not in any older age group (Table 3). By contrast, the odds of non-use were increased for women intending to have children in the future among those in the two oldest age groups, and for women reporting difficulty achieving pregnancy among those in the three oldest groups. Having public versus private insurance was associated with increased odds of non-use among women in the youngest and oldest age groups, but there was no change in the odds of non-use for women without insurance as compared to private insurance in any age group. The odds of non-use were reduced for single as compared to married women among those in the two middle age groups.

Similar to the pattern for non-use, the odds of sporadic versus stable use were increased for women intending to have children in the future among those in the two oldest groups, and for women reporting difficulty achieving pregnancy among those in the three oldest groups (Table 4). In contrast to the pattern for non-use, in no age group was a history of ever having discontinued a method due to dissatisfaction associated with a change in the odds of sporadic use. Also in contrast to the pattern for non-use, having no health insurance versus private insurance was associated with decreased odds of sporadic use among women 25–34 years, but having public insurance was not associated with sporadic use in any age group. Similar to the pattern for non-use, the odds of sporadic use were reduced for single as compared to married women among those in the two middle age groups, while the odds of sporadic use were also reduced in the two middle age groups for women experiencing 6 as compared to 0–2 months of sexual inactivity in the past year.

COMMENT

The prevalence of contraceptive non-use and sporadic use and associated factors differ markedly by age. Over a 1-year period, contraceptive non-use was lowest for teens and increased across age groups, while sporadic use was lowest for women in the oldest age group. Among teens, a history of ever discontinuing a method due to dissatisfaction was associated with not using contraception, whereas among older women, intending to have children in the future and reported difficulty achieving pregnancy were both associated with not using contraception and using contraception sporadically.

Despite the fact that teens had the highest prevalence of stable contraceptive use, unintended pregnancy rates in this age group remain high, particularly when rates are based only on women who are sexually active. ¹⁹ One reason for this pattern is that teens most commonly use condoms and oral contraceptives, 20 which can be difficult to use correctly and consistently, and consequently have comparatively high failure rates with typical use.²¹ Reliance on surgical sterilization increases with age²² and removes the risk of unintended pregnancy, but cannot be used by women who are not certain they have completed their desired childbearing. However, long-acting reversible contraceptives (LARCs), including intrauterine devices and implants, require no effort after placement to use correctly and consistently and have failure rates within the range of permanent sterilization.²¹ Although these methods historically have been underutilized among young and nulliparous women, these methods are safe²³ and recommended as a first-line choice for contraception among adolescents.²⁴ Using a tiered approach to contraceptive counseling, in which LARCs are discussed first among a range of methods that meet the priorities expressed by the client, 25, 26 may help to promote the use of these methods and reduce unintended pregnancy rates among adolescents.^{27,28}

In this analysis we also found that a history of ever having discontinued a method due to dissatisfaction was associated with contraceptive non-use among teens, but not among women in older age groups. Nonetheless, the prevalence of ever discontinuing a method due to dissatisfaction was lowest for teens and then leveled off at roughly 50% for older women. This suggests most women who discontinue a method due to dissatisfaction eventually find one they are comfortable using; however, teens, who are more likely to have recently

become sexually active, are particularly vulnerable to not using any contraception while they are finding a method that is right for them. Thus, it is especially important for teens that healthcare providers discuss potential side effects and other difficulties women commonly provide as reasons for discontinuation, $^{29-31}$ and then help them to develop a plan for overcoming these problems, including selection of another method, if necessary. Encouraging LARC use among teens again may be an effective way to promote continued use of contraception. The Contraceptive CHOICE Project has shown that adolescents as compared to older women have lower levels of satisfaction and higher levels of discontinuation with non-LARC methods, but found no significant age differences with LARCs. 32

Our finding among women 25 years that sporadic use and non-use were associated with intentions to have children in the future is consistent with studies finding an association with ambivalence about avoiding pregnancy.^{2, 5, 13, 14} Women should be encouraged to think about when they plan to have children, and then offered more intensive counseling on preparing for a healthy pregnancy or the benefits of various contraceptive methods, including LARCs, depending on their desired time-frame for having children.

The increasing strength of association across age groups between reported difficulty achieving pregnancy and sporadic contraceptive use and non-use highlights the importance of contraceptive counseling for older women. Although fertility declines with age, women remain potentially fertile during perimenopause, ³³ and in one study of women who became pregnant unintentionally because they were not using a method, 10% thought they or their partner were sterile. ³⁴ To promote contraceptive use until menopause, providers may need to discuss the potential for residual fertility, and, if appropriate, highlight the benefits of hormonal methods for managing perimenopausal symptoms. ^{35, 36}

In this analysis, the association between health insurance and the stability of contraceptive use did not vary consistently with age. Although women with health insurance are significantly more likely to receive birth control services, ³⁷ several other variables can influence access to services (e.g., difficulties with transportation and obtaining time off from work/school, confidentiality concerns, use of publicly funded clinics). While some of these variables may vary by age, we were unable to include them in our analysis. In addition, the impact of birth control services on use of contraception may be more complex for younger women, who may be more likely to discontinue a method they have been provided, ^{32, 38} but also commonly use methods such as condoms and withdrawal²⁰ that do not require services from a healthcare provider.

This analysis is not without limitations. While our contraceptive use measure spanned an entire year and differentiated between sporadic use and non-use, it did not measure incorrect use (e.g., missing pills, putting on a condom after initiation of sex), which contributes substantially to unintended pregnancy. Second, although our outcome measure captured gaps in use, we were unable to assess consistency of use within months. To compensate for this, we included whether a method was used at last intercourse; while this only accounted for one act of intercourse, the probability that a woman would be classified as a sporadic user in this manner was proportional to the inconsistency of her use. Nonetheless, we were

unable to determine if stable users used a method every time they had sex. Third, our measure of reported difficulty achieving pregnancy had limitations. We did not consider women at risk during months they or their partners indicated they were sterile for any reason. Because some women who believe they are sterile become pregnant nonetheless, ³⁴ we may have underestimated the association between difficulty achieving pregnancy and contraceptive use patterns.

This analysis indicates there are important age-differences in the prevalence of sporadic contraceptive use and non-use, as well as the factors associated with reduced stability of use among women at risk for unintended pregnancy. Because the stability of contraceptive use and associated factors differ by age, providers may need to consider these differences when counseling women about contraception. To address non-use, it may be especially important to help teens identify a method they are comfortable using, while for older women it may be more important to discuss the potential for continuing fertility. To address sporadic use, it may be helpful to discuss the benefits of user-independent methods, with a particular emphasis on LARCs for younger women and teens who are less likely to have completed their desired childbearing and for whom user-independent methods may be particularly beneficial for increasing stable contraceptive use.

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References

- 1. Finer LB, Zolna MR. Shifts in intended and unintended pregnancies in the United States, 2001–2008. Am J Public Health. 2014; 104 (Suppl 1):S43–8. [PubMed: 24354819]
- Glei DA. Measuring contraceptive use patterns among teenage and adult women. Fam Plann Perspect. 1999; 31:73–80. [PubMed: 10224545]
- 3. Brunner Huber LR, Huber KR. Contraceptive choices of women 35–44 years of age: findings from the Behavioral Risk Factor Surveillance System. Annals of Epidemiology. 2009; 19:823–833. [PubMed: 19394863]
- Upson K, Reed SD, Prager SW, Schiff MA. Factors associated with contraceptive nonuse among US women ages 35–44 years at risk of unwanted pregnancy. Contraception. 2010; 81:427–434.
 [PubMed: 20399950]
- 5. Wu J, Meldrum S, Dozier A, Stanwood N, Fiscella K. Contraceptive nonuse among US women at risk for unplanned pregnancy. Contraception. 2008; 78:284–289. [PubMed: 18847575]
- Finer L, Zolna M. Unintended pregnancy in the United States: incidence and disparities. Contraception. 2011; 84:478–485. [PubMed: 22018121]
- 7. Pazol K, Creanga AA, Burley K, Hayes B, Jamieson DJ. Abortion Surveillance United States, 2010. MMWR Surveill Summ. 2013; 62:1–44. [PubMed: 24280963]
- 8. Berg CJ, Callaghan WM, Syverson C, Henderson Z. Pregnancy-related mortality in the United States, 1998 to 2005. Obstet Gynecol. 2010; 116:1302–9. [PubMed: 21099595]
- 9. Dulitzki M, Soriano D, Schiff E, Chetrit A, Mashiach S, Seidman DS. Effect of very advanced maternal age on pregnancy outcome and rate of cesarean delivery. Obstet Gynecol. 1998; 92:935–9. [PubMed: 9840553]
- 10. Jolly M, Sebire N, Harris J, Robinson S, Regan L. The risks associated with pregnancy in women aged 35 years or older. Hum Reprod. 2000; 15:2433–7. [PubMed: 11056148]
- 11. Hook EB. Rates of chromosome abnormalities at different maternal ages. Obstet Gynecol. 1981; 58:282–5. [PubMed: 6455611]

12. Gold, RB.; Sonfield, A.; Richards, CL.; Frost, JJ. Next steps for America's family planning program: leveraging the potential of Medicaid and Title X in an evolving health care system. New York: Guttmacher Institute; 2009.

- 13. Frost JJ, Singh S, Finer LB. Factors associated with contraceptive use and nonuse, United States, 2004. Perspect Sex Reprod Health. 2007; 39:90–9. [PubMed: 17565622]
- 14. Jones RK, Darroch JE, Henshaw SK. Contraceptive use among U.S. women having abortions in 2000–2001. Perspect Sex Reprod Health. 2002; 34:294–303. [PubMed: 12558092]
- 15. Lepkowski J, Mosher W, Groves R, West B, Wagner J, Gu H. Responsive design, weighting, and variance estimation in the 2006–2010 National Survey of Family Growth. National Center for Health Statistics Vital Health Stat. 2013; 2(158):2–52.
- Weisman CS, Maccannon DS, Henderson JT, Shortridge E, Orso CL. Contraceptive counseling in managed care: preventing unintended pregnancy in adults. Women's Health Issues. 2002; 12:79– 95. [PubMed: 11879761]
- 17. Foster DG, Bley J, Mikanda J, Induni M, Arons A, Baumrind N, et al. Contraceptive use and risk of unintended pregnancy in California. Contraception. 2004; 70:31–9. [PubMed: 15208050]
- 18. Fellegi I. Approximate tests of independence and goodness of fit based on stratified multistage samples. Journal of the American Statistical Association. 1980; 75:261–268.
- Finer LB. Unintended pregnancy among U.S. adolescents: accounting for sexual activity. J Adolesc Health. 2010; 47:312–4. [PubMed: 20708573]
- Martinez G, Copen C, Abma J. Teenagers in the United States: sexual activity, contraceptive use, and childbearing, 2006–2010, National Survey of Family Growth. National Center for Health Statistics Vital and Health Statistics. 2011; 23:1–35.
- Trussell J. Contraceptive failure in the United States. Contraception. 2011; 83:397–404. [PubMed: 21477680]
- 22. Jones J, Mosher WD, Daniels K. Current contraceptive use in the United States, 2006–2010, and changes in patterns of use since 1995. Natl Vital Stat Rep. 2012:60.
- Centers for Disease Control and Prevention. US selected practice recommendations for contraceptive use. MMWR Recomm Rep. 2013; 62:1–60.
- American College of Obstetricians and Gynecologtists. Practice bulletin no. 121: Long-acting reversible contraception: implants and intrauterine devices. Obstetrics and Gynecology. 2011; 118:184–196. [PubMed: 21691183]
- 25. Jaccard, J. Careful, current, and consistent: tips to improve contraceptive use. Washington, DC: National Campaign to Prevent Teen Pregnancy; 2010.
- 26. Gavin L, Moskosky S, Carter M, Curtis K, Glass E, Godfrey E, et al. Providing quality family planning services: recommendations of CDC and the US Office of Population Affairs. MMWR Recomm Rep. 2014; 63(RR-04):1–54. [PubMed: 24759690]
- 27. Peipert JF, Madden T, Allsworth JE, Secura GM. Preventing unintended pregnancies by providing no-cost contraception. Obstetrics and Gynecology. 2012; 120:1291–1297. [PubMed: 23168752]
- 28. Ricketts S, Klingler G, Schwalberg R. Game change in Colorado: widespread use of long-acting reversible contraceptives and rapid decline in births among young, low-income women. Perspect Sex Reprod Health. 2014; 46:125–132. [PubMed: 24961366]
- 29. Rosenberg MJ, Waugh MS. Oral contraceptive discontinuation: a prospective evaluation of frequency and reasons. Am J Obstet Gynecol. 1998; 179:577–82. [PubMed: 9757954]
- 30. Westhoff CL, Heartwell S, Edwards S, Zieman M, Stuart G, Cwiak C, et al. Oral contraceptive discontinuation: do side effects matter? Am J Obstet Gynecol. 2007; 196:412.e1–6. discussion 412 e6–7. [PubMed: 17403440]
- 31. Stuart JE, Secura GM, Zhao QH, Pittman ME, Peipert JF. Factors associated with 12-month discontinuation among contraceptive pill, patch, and ring users. Obstetrics and Gynecology. 2013; 121:330–336. [PubMed: 23344283]
- 32. Rosenstock JR, Peipert JF, Madden T, Zhao Q, Secura GM. Continuation of reversible contraception in teenagers and young women. Obstetrics and Gynecology. 2012; 120:1298–1305. [PubMed: 23168753]
- 33. Gebbie AE, Glasier A, Sweeting V. Incidence of ovulation in perimenopausal women before and during hormone replacement therapy. Contraception. 1995; 52:221–222. [PubMed: 8605779]

34. Nettleman MD, Chung H, Brewer J, Ayoola A, Reed P. Reasons for unprotected intercourse: analysis of the PRAMS survey. Contraception. 2007; 75:361–366. [PubMed: 17434017]

- 35. Beasley A. Contraception for specific populations. Seminars in Reproductive Medicine. 2010; 28:147–155. [PubMed: 20422512]
- 36. Hardman S, Gebbie A. Hormonal contraceptive regimens in the perimenopause. Maturitas. 2009; 63:204–212. [PubMed: 19524378]
- 37. Frost, JJ. US women's use of sexual and reproductive health services: trends, sources of care and factors associated with use, 1995–2010. New York: Guttmacher Institute; 2013.
- 38. Vaughan B, Trussell J, Kost K, Singh S, Jones R. Discontinuation and resumption of contraceptive use: results from the 2002 National Survey of Family Growth. Contraception. 2008; 78:271–83. [PubMed: 18847574]
- 39. Frost JJ, Darroch JE. Factors associated with contraceptive choice and inconsistent method use, United States, 2004. Perspect Sex Reprod Health. 2008; 40:94–104. [PubMed: 18577142]
- Whitaker AK, Sisco KM, Tomlinson AN, Dude AM, Martins SL. Use of the intrauterine device among adolescent and young adult women in the United States from 2002 to 2010. J Adolesc Health. 2013; 53:401–6. [PubMed: 23763968]

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Table 1

Characteristic	$\frac{15-19 \text{ yrs } (\text{N}^{7} = 962)}{\text{N}^{\cancel{+}} (\%^{\$}, *^{\$})}$	$\frac{20-24 \text{ yrs (N=1,678)}}{\text{N (%)}}$	25-34 yrs (N=3,134) N (%)	$\frac{35-44 \text{ yrs (N=1,612)}}{\text{N (\%)}}$
Method discontinuation due to dissatisfaction $^{\uparrow\uparrow}$	ion $ au au$			
Never used a method	<i>‡‡</i>	10 (0.8)	23 (0.7)	28 (1.2)
Never discontinued due to dissatisfaction	653 (69.7)	885 (51.9)	1,468 (47.8)	787 (50.9)
Ever discontinued due to dissatisfaction	306 (30.0)	783 (47.3)	1,642 (51.6)	797 (47.9)
Health insurance coverage in the past year ††	++			
Private	479 (55.7)	872 (58.6)	1,896 (67.1)	1,164 (76.1)
Public	388 (37.8)	526 (23.5)	713 (18.2)	203 (9.4)
None	71 (6.6)	279 (17.9)	522 (14.7)	243 (14.5)
Receipt birth control services in the past year $\$\$, t^{\dagger}$	ear 88,77			
Yes	623 (65.8)	1,095 (65.5)	1,842 (58.4)	691 (44.8)
No	339 (34.2)	583 (34.5)	1,292 (41.6)	921 (55.2)
Number of partners in the past year ††				
1	628 (64.4)	1,230 (75.7)	2,655 (88.9)	1,444 (94.3)
2	325 (35.6)	428 (24.3)	446 (11.1)	142 (5.7)
Months without intercourse in the past year ††	${f r}^{\dagger\dagger}$			
0-2	372 (37.2)	1,054 (65.1)	2,211 (75.8)	1,151 (75.6)
3–5	184 (21.2)	269 (14.6)	406 (11.4)	189 (10.2)
9	406 (41.6)	355 (20.2)	517 (12.8)	272 (14.2)
Marital status ††				
Married	28 (2.8)	287 (21.3)	1,395 (54.6)	952 (68.6)
Cohabiting	119 (11.9)	350 (22.1)	509 (16.7)	152 (7.5)
Single	815 (85.3)	1,041 (56.6)	1,230 (28.6)	508 (23.9)
Intends to have children in the future ††				
Vec	0	1000	1	

Characteristic		20-24 vrs (N=1.678)	1 to 1 to 1 N N N N N N N N N N	35-44 vrs (N=1.612)
	N^{+} (% 8 ,**)	N (%)	N (%)	N (%)
Uncertain	7 (0.4)	13 (0.9)	83 (2.6)	43 (2.6)
No	140 (13.0)	340 (18.7)	1,185 (35.3)	1,188 (77.1)
Reports it is difficult or impossible to get pregnant ††	regnant ††			
Yes	26 (2.8)	99 (5.1)	235 (8.5)	207 (12.0)
No	936 (97.2)	1,569 (94.9)	2,852 (91.5)	1,344 (88.0)
Parity $\dagger o \dagger$				
0 births	793 (84.2)	981 (65.9)	1,110 (38.4)	418 (22.1)
1 birth	140 (12.6)	419 (20.4)	769 (25.0)	418 (23.9)
2 births	(3.2)	278 (13.6)	1,255 (36.6)	776 (54.1)
Household income (% of FPL) ††				
<100%	362 (34.4)	533 (26.6)	761 (17.5)	261 (13.4)
100% to <400%	505 (54.8)	942 (59.4)	1,716 (56.1)	922 (58.6)
400%	95 (10.9)	203 (14.1)	657 (26.4)	429 (28.0)
Highest level of education $^{***, \dot{ au}\dot{ au}}$				
12 th grade	203 (18.3)	267 (13.9)	467 (10.7)	206 (10.8)
High school or equivalent	299 (31.3)	529 (29.6)	774 (22.3)	334 (20.7)
Some college or higher	459 (50.4)	882 (56.5)	1,893 (66.9)	1,072 (68.5)
Race/Ethnicity †††				
Hispanic	210 (18.0)	347 (16.8)	778 (18.5)	322 (14.5)
Non-Hispanic White	472 (56.8)	814 (59.3)	1,507 (60.6)	857 (62.1)
Non-Hispanic Black	201 (15.6)	381 (15.4)	610 (13.3)	(12.7)
Non-Hispanic Other or Multiple Race	(9:6) 6L	136 (8.5)	(7.7) 239	144 (10.7)

[&]quot;. A woman was considered at risk for unintended pregnancy during any month she had intercourse, unless she was pregnant or seeking pregnancy, or she was sterile or had a partner who was sterile, by any means, including a tubal sterilizing operation or a vasectomy.

 $^{^{} au}$ Un-weighted.

[§]Weighted.

*
Percentages for each characteristic may not sum to 100 due to rounding.

 $^{\uparrow\,\uparrow}$ Significant at P<0.001; Chi-square test based on adjusted Wald-F statistic.

 $^{+\ddagger}_{}$ Cells with dashes are not reported due to low cell counts (N<5).

§\$§ Includes receiving a medical check-up related to using birth control; a birth control method or a prescription for a birth control; and counseling or information about birth control, including emergency contraception and surgical sterilization.

*** Because women <20 years have not had the opportunity to complete their education, as in other analyses the highest level of education obtained by a woman's mother or mother figure has been used for women aged 15-19 years, 40

 $^{\uparrow\,\uparrow\,\uparrow}$ Significant at P<0.05; Chi-square test based on adjusted Wald-F statistic.

Table 2

Prevalence and multivariable odds of contraceptive non-use, sporadic use and stable use among women at risk for unintended pregnancy, 2006–2010 National Survey of Family Growth

	Age-Group Specifi	Age-Group Specific % † of Women by Stability of Contraceptive Use	of Contraceptive Use	Adjusted C	Adjusted Odds (95% CI)‡
Age-group	%Non-use (95% CI)	Age-group %Non-use (95% CI) %Sporadic Use (95% CI) %Stable Use (95% CI) Non-use vs. Stable Use Sporadic Use vs. Stable Use	%Stable Use (95% CI)	Non-use vs. Stable Use	Sporadic Use vs. Stable Use
15–19	4.5 (3.2–6.3)	15.9 (12.7–19.6)	79.6 (75.5–83.1)	0.34 (0.22–0.55)	1.28 (0.86–1.89)
20–24	9.2 (7.2–11.7)	16.4 (13.5–19.8)	74.4 (70.7–77.7)	0.65 (0.45–0.92)	1.16 (0.89–1.52)
25–34	25–34 13.9 (12.1–15.9)	16.5 (14.6–18.6)	69.6 (66.9–72.1)	REF	REF
35–44	19.6 (16.8–22.7)	9.9 (7.9–12.4)	70.5 (66.8–73.9)	1.35 (0.99–1.83)	0.61 (0.45-0.84)

CI, confidence interval; REF, reference category; significant findings are in bold.

A woman was considered at risk for unintended pregnancy during any month she had intercourse, unless she was pregnant or seeking pregnancy, or she was sterile or had a partner who was sterile, by any means, including a tubal sterilizing operation or a vasectomy.

 $^{^{\}dagger}$ Weighted.

^{*}Odds among women who have ever used a contraceptive method adjusted for: health insurance coverage, receipt of birth control services, number of partners and months without insurance in the past year; marital status; intentions to have children in the future; reported difficulty achieving pregnancy; parity; household income; education; and race/ethnicity.

Table 3

Multivariable odds of contraceptive non-use versus stable use among women at risk for unintended pregnancy,* 2006–2010 National Survey of Family Growth

Characteristic	15–19 years aOR (95% CI) †	20–24 years aOR (95% CI)	25–34 years aOR (95% CI)	35–44 years aOR (95% CI)
Method discontinuation due to dissatisfaction	dissatisfaction			
Never discontinued a method	REF	REF	REF	REF
Ever discontinued a method	4.00 (1.31–12.2)	1.49 (0.81–2.76)	0.85 (0.57–1.26)	0.81 (0.48–1.38)
Health insurance coverage over the past year	the past year			
Private	REF	REF	REF	REF
Public	7.89 (1.86–33.5)	2.68 (0.98–7.32)	1.00 (0.56–1.81)	6.18 (2.82–13.5)
None	3.48 (0.54–22.3)	0.99 (0.37–2.68)	0.86 (0.47–1.55)	1.04 (0.50–2.15)
Months without intercourse in the past year	the past year			
0–2	REF	нен	REF	REF
3–5	0.42 (0.14–1.30)	0.69 (0.26–1.87)	1.53 (0.86–2.75)	0.97 (0.41–2.31)
9	1.98 (0.74–5.29)	1.99 (0.78–5.07)	1.01 (0.52–1.95)	1.24 (0.53–2.91)
Marital status				
Married	REF	нен	REF	REF
Cohabiting	6.37 (0.90–45.3)	0.78 (0.37–1.67)	1.18 (0.72–1.94)	0.88 (0.38-2.03)
Single	2.18 (0.28–16.8)	0.20 (0.08-0.46)	0.49 (0.26-0.91)	0.61 (0.29–1.29)
Intends to have children in the future	future			
Yes	0.68 (0.22–2.12)	1.21 (0.60–2.42)	1.64 (1.09–2.49)	3.24 (1.87–5.60)
No/uncertain	REF	REF	REF	REF
Reports it is difficult or impossible to get pregnant	ble to get pregnant			
Yes	1.66 (0.42–6.50)	4.20 (1.84–9.59)	9.65 (5.76–16.2)	13.4 (7.94–22.6)
No	REF	REF	REF	REF

A woman was considered at risk for unintended pregnancy during any month she had intercourse, unless she was pregnant or seeking pregnancy, or she was sterile or had a partner who was sterile, by any means, including a tubal sterilizing operation or a vasectomy.

dods among women who have ever used a contraceptive method adjusted for. health insurance coverage, receipt of birth control services, number of partners and months without insurance in the past year; marital status; intentions to have children in the future; reported difficulty achieving pregnancy; parity; household income; education; and race/ethnicity.

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Table 4

Multivariable odds of sporadic use versus stable use among women at risk for unintended pregnancy, * 2006-2010 National Survey of Family Growth

Characteristic	15–19 years aOR (95% CI) [†] , [‡]	20–24 years aOR (95% CI)	25–34 years aOR (95% CI)	35–44 years aOR (95% CI)
Method discontinuation due to dissatisfaction	dissatisfaction			
Never discontinued a method	REF	REF	REF	REF
Ever discontinued a method	1.15 (0.68–1.97)	1.12 (0.79–1.58)	1.07 (0.80–1.43)	1.37 (0.78–2.40)
Health insurance coverage over the past year $^{\$}$	the past year§			
Private	REF	REF	REF	REF
Public	1.57 (0.94–2.61)	1.28 (0.75–2.18)	0.92 (0.60–1.42)	1.39 (0.56–3.46)
None	2.07 (0.82–5.24)	0.83 (0.49–1.43)	0.45 (0.28–0.71)	1.11 (0.55–2.24)
Months without intercourse in the past year	the past year			
0–2	REF	REF	REF	REF
3–5	1.27 (0.66–2.43)	0.78 (0.50–1.21)	1.02 (0.60–1.72)	1.88 (0.95–3.74)
9	0.54 (0.28–1.02)	0.52 (0.30-0.91)	0.45 (0.29-0.68)	0.87 (0.43–1.75)
Marital status				
Married	REF	REF	REF	REF
Cohabiting	1.34 (0.36–4.98)	0.72 (0.43–1.21)	0.48 (0.30-0.78)	0.45 (0.19–1.09)
Single	0.59 (0.15–2.35)	0.48 (0.26-0.91)	0.50 (0.33-0.75)	0.64 (0.33–1.25)
Intends to have children in the future	future			
Yes	1.08 (0.51–2.29)	0.90 (0.55–1.49)	1.54 (1.13–2.09)	2.47 (1.35–4.54)
No/uncertain	REF	REF	REF	REF
Reports it is difficult or impossible to get pregnant	ible to get pregnant			
Yes	2.37 (0.75–7.46)	2.33 (1.15-4.72)	3.85 (2.24–6.62)	4.05 (1.90–8.65)
No	REF	REF	REF	REF

A woman was considered at risk for unintended pregnancy during any month she had intercourse, unless she was pregnant or seeking pregnancy, or she was sterile or had a partner who was sterile, by any means, including a tubal sterilizing operation or a vasectomy.

dodds among women who have ever used a contraceptive method adjusted for: health insurance coverage, receipt of birth control services, number of partners and months without insurance in the past year; marital status; intentions to have children in the future; reported difficulty achieving pregnancy; parity; household income; education; and race/ethnicity.